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NUCLEAR REGULATORY COMMISSION

[NRC-2010-0158]

Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees other than Power Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Regulatory guide; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing a revision to Regulatory Guide (RG) 4.20, "Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees other than Power Reactors." This RG provides guidance on methods acceptable to the NRC's staff for meeting the constraint on airborne emissions of radioactive material to the environment.

ADDRESSES: Please refer to Docket ID **NRC-2010-0158** when contacting the NRC about the availability of information regarding this document. You may access information related to this document, which the NRC possesses and is publicly available, using the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2010-0158**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-492-3668; e-mail: Carol.Gallagher@nrc.gov.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**
You may access publicly available documents online in the NRC Library at

<http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “[ADAMS Public Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdresource@nrc.gov. The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced. Revision 1 of RG 4.20 is available in ADAMS under Accession No. ML110120299. The regulatory analysis may be found in ADAMS under Accession No. ML110120351.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

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SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is issuing a revision to an existing guide in the NRC’s “Regulatory Guide” series. This series was developed to describe and make available to the public information such as methods that are acceptable to the NRC staff for implementing specific parts of the

agency's regulations, techniques that the staff uses in evaluating specific problems or postulated accidents, and data that the staff needs in its review of applications for permits and licenses.

Revision 1 of RG 4.20 was issued with a temporary identification as Draft Regulatory Guide (DG)-4018. This RG provides guidance on methods acceptable to the NRC staff for meeting the constraint on airborne emissions of radioactive material to the environment as described in Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1101(d). In 1996, the NRC added a constraint to 10 CFR Part 20, "Standards for Protection Against Radiation," to remove dual regulation by the NRC and the U.S. Environmental Protection Agency and to provide an "ample margin of safety" to members of the public from airborne emissions of radioactive material to the environment.

In 10 CFR 20.1101(d), the NRC states the following:

To implement the ALARA (as low as is reasonably achievable) requirements of § 20.1101(b), and notwithstanding the requirements in § 20.1301 of this part, a constraint on air emissions of radioactive material to the environment, excluding radon-222 and its daughters, shall be established by licensees other than those subject to § 50.34a, such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 10 mrem [millirem] (0.1 mSv [millisievert]) per year from these emissions. If a licensee subject to this requirement exceeds this dose constraint, the licensee shall report the exceedance as provided in § 20.2203 and promptly take appropriate corrective action to ensure against recurrence.

The NRC staff examines licensee programs to determine whether they comply with the requirements in 10 CFR Part 20. This guide addresses only a part of a licensee's overall radiation protection program. Specifically, it addresses methods that licensees can use to demonstrate that they meet the constraint on airborne emissions of radioactive material to the environment. In addition to controlling doses from airborne emissions of radioactive material to the environment, licensees must implement a radiation protection program that controls liquid effluents and dose rates in unrestricted areas.

II. Further Information

On April 20, 2010 (75 FR 20645), DG-4018 was published in the *Federal Register* and it was reopened for a 60-day public comment period on June 25, 2010 (75 FR 36445). The public comment period closed on August 23, 2010. The *Federal Register* notice (FRN) dated June 25, 2010 (75 FR 36445), inadvertently cited the ADAMS accession number for the original FRN noticing the issuance of DG-4018 (75 FR 20645; ADAMS Accession No. ML092600090) in place of the ADAMS accession number for DG-4018 (ADAMS Accession No. ML092590180). However, the original FRN noticing the issuance of DG-4018 (75 FR 20645; ADAMS Accession No. ML092600090) cited the correct ADAMS accession number for DG-4018.

Dated at Rockville, Maryland, this 17th day of April, 2012.

For the Nuclear Regulatory Commission.

/RA/

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